

IN THE CLAIMS:

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Claim 1. (original) A method of forming a multilayer metal foil product comprising

- providing a continuous stack of metal foil layers;
- separating at least two of the layers of the stack;
- imparting a pattern or surface treatment to at least one of said separated layers of metal foil;
- recombining the separated metal foil layers into a continuous stack of metal foil layers; and
- forming and cutting individual multilayer metal foil parts from said recombined continuous stack of metal foil layers.

Claim 2. (original) A method according to claim 1 wherein the pattern imparted to said at least one layer of metal foil is embossments or corrugations.

Claim 3. (original) A method according to claim 1 wherein the continuous stack of metal foil layers is provided from a z-fold pack.

Claim 4. (original) A method according to claim 1 wherein the stack of metal foil layers comprises a fibrous layer between two metal foil layers.

Claim 5. (original) A method according to claim 1 wherein the surface treatment comprises an adhesive applied to a surface of said at least one layer of metal foil.

Claim 6. (original) A method according to claim 1 wherein the stack of metal foils comprises a metal sheet layer.

Claim 7. (original) A method according to claim 2 comprising providing a stack of metal foil layers having at least one layer having a preexisting embossed pattern and imparting to at least one separated layer of metal foil a pattern of corrugations before recombining the layers into the continuous stack.

Claim 8. (original) A method according to claim 2 comprising providing a stack of metal foil layers having all the layers embossed and nested and imparting to at least one separated layer a pattern of corrugations before recombining the layers into the continuous stack.

Claim 9. (original) A method according to claim 7 comprising providing a stack comprising five metal foil layers comprising three embossed metal foil layers and two smooth metal foil layers positioned one between each pair of embossed metal foil layers and imparting a pattern of corrugations to each of the two smooth metal foil layers before recombining the five metal foil layers into the continuous stack.


Claims 10 - 15 (canceled)

Claim 16. (original) A method of forming a multilayer metal foil product comprising

- providing a continuous stack comprising patterned and nested metal foil layers;
- separating at least two of the nested layers of the stack;
- recombining the separated metal foil layers into a continuous stack of the metal foil layers in a manner to prevent the layers from nesting; and
- forming and cutting individual multilayer metal foil parts from said recombined stack of metal foil layers.

Claim 17. (original) A method according to claim 16 comprising imparting an additional pattern or a surface treatment to at least one of said separated layers of metal foil.

Claim 18. (original) A method according to claim 16 wherein the pattern imparted to said at least one layer of metal foil is embossments or corrugations.

 Claim 19. (original) A method according to claim 16 wherein the continuous stack of metal foil layers is provided from a z-fold pack.

Claim 20. (original) A method according to claim 16 wherein the stack of metal foil layers comprises a fibrous layer between two metal foil layers.

Claim 21. (original) A method according to claim 16 wherein the surface treatment comprises an adhesive applied to a surface of said at least one layer of metal foil.

Claim 22. (original) A method according to claim 16 wherein the stack of metal foils comprises a metal sheet layer.

Claims 23 - 53 (canceled)

Claim 54. (previously presented) A method of producing a multilayer metal foil product comprising:

combining a plurality of previously patterned continuous metal foil layers to form an advancing continuous stack of spaced apart metal foil layers;

scoring or creasing the advancing continuous stack of spaced apart metal foil layers across at least a portion of the width of the stack at predetermined intervals wherein the score or crease alternates in a left and a right direction;

causing the continuous stack of spaced apart metal foil layers to fold in alternating directions at said scores or creases; and

piling the alternately folding stack in a zigzag fashion to form a z-fold pack of the continuous stack of spaced apart metal foil layers.

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Claim 55. (previously presented) The method according to Claim 54, wherein the step of combining the plurality of previously patterned continuous metal foil layers comprises combining at least one previously patterned with at least one other previously patterned metal foil layer to form the continuous stack of spaced apart metal foil layers.

Claim 56. (previously presented) The method according to Claim 54, wherein the step of combining the plurality of previously patterned continuous metal foil layers comprises combining at least one patterned metal foil layer and at least one flat metal foil layer to form the continuous stack of spaced apart metal foil layers.

Claim 57. (previously presented) The method according to Claim 54, wherein the pattern imparted to the previously patterned continuous metal foil layers is embossments or corrugations.

Claim 58. (previously presented) The method according to Claim 54, further comprising combining a fiber layer between two of the metal foil layers.

Claim 59. (previously presented) The method according to Claim 54, wherein the step of scoring or creasing is performed by a plurality of rotating members having a respective male and female position.

Claim 60. (previously presented) The method according to Claim 54, wherein scoring or creasing is only at an edge of the continuous stack of spaced apart metal foil layers.

Claim 61. (previously presented) The method according to Claim 54, wherein scoring or creasing is only at a plurality of points across the width of the continuous stack of spaced apart metal foil layers.

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Claim 62. (previously presented) The method according to Claim 54, wherein scoring or creasing is only on a top layer of the continuous stack of spaced apart metal foil layers.

Claim 63. (previously presented) A method of producing a multilayer metal foil product comprising:

combining a plurality of continuous flat metal foil layers to form an advancing continuous stack of metal foil layers and imparting a pattern to all layers of the stack to form an advancing stack of patterned and nested metal foil layers;

scoring or creasing the advancing stack of patterned and nested metal foil layers across at least a portion of the width of the stack at predetermined intervals;

causing the stack of patterned and nested metal foil layers to fold in alternating directions at said scores or creases; and

piling the alternately folding stack in a zigzag fashion to form a z-fold pack of the stack of patterned and nested metal foil layers.

Claim 64. (previously presented) The method according to Claim 63, wherein the pattern imparted to the stack of metal foil layers is embossments or corrugations.

Claim 65. (previously presented) The method according to Claim 63, further comprising combining a fiber layer between two of the metal foil layers.

Claim 66. (previously presented) The method according to Claim 63, wherein the step of scoring or creasing is performed by rotating members having a respective male and female position.

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Claim 67. (previously presented) A method of producing multilayer metal foil parts comprising:

feeding to a parts forming operation a continuous previously patterned multilayer stack of spaced apart metal foil layers from a z-fold pack of a continuous previously patterned multilayer stack of spaced apart metal foil layers; and

forming and cutting individual multilayer metal foil parts from said stack of spaced apart metal foil layers.

Claim 68. (previously presented) The method according to Claim 67, wherein at least one of said metal foil layers is embossed or corrugated.

Claim 69. (previously presented) The method according to Claim 67, further comprising at least one fiber layer.

Claim 70. (previously presented) The method according to Claim 67, wherein a draw of the continuous previously patterned multilayer stack of spaced apart metal foil layers from the z-fold stack is horizontal.

Claim 71. (previously presented) The method according to Claim 67, wherein a draw of the continuous previously patterned multilayer stack of spaced apart metal foil layers from the z-fold stack is non-vertical.

Claim 72. (previously presented) A method of producing a multilayer metal foil product comprising:

combining a plurality of previously patterned continuous metal foil layers to form an advancing continuous stack of spaced apart metal foil layers;

scoring or creasing the advancing continuous stack of spaced apart metal foil layers across at least a portion of the width of the stack at predetermined intervals wherein the score or crease alternates in a left and a right direction, wherein the scoring or creasing is performed by a plurality of rotating members having a respective male and female positions, and wherein the rotating members are periodically activated and rotated one revolution at predetermined intervals to produce an alternating score or crease across the substantial width of the continuous stack of spaced apart metal foil layers;

causing the continuous stack of spaced apart metal foil layers to fold in alternating directions at said scores or creases; and


piling the alternately folding stack in a zigzag fashion to form a z-fold pack of the continuous stack of spaced apart metal foil layers.

Claim 73. (previously presented) The method according to Claim 72, wherein the step of combining the plurality of previously patterned continuous metal foil layers comprises combining at least one previously patterned with at least one other previously patterned metal foil layer to form the continuous stack of spaced apart metal foil layers.

Claim 74. (previously presented) The method according to Claim 72, wherein the step of combining the plurality of previously patterned continuous metal foil layers comprises combining at least one patterned metal foil layer and at least one flat metal foil layer to form the continuous stack of spaced apart metal foil layers.

Claim 75. (previously presented) The method according to Claim 72, wherein the pattern imparted to the previously patterned continuous metal foil layers is embossments or corrugations.

Claim 76. (previously presented) The method according to Claim 72, further comprising combining a fiber layer between two of the metal foil layers.

 Claim 77. (currently amended) The method according to Claim ~~54~~ 59, wherein the rotating members are stationary, except when they are periodically activated.

Claim 78. (previously presented) The method according to Claim 77, wherein the rotating members are rotated one revolution at a predetermined interval to produce the alternating score or crease.

Claim 79. (previously presented) The method according to Claim 66, wherein the rotating members are stationary, except when they are periodically activated.

Claim 80. (previously presented) The method according to Claim 79, wherein the rotating members are rotated one revolution at a predetermined interval to produce the alternating score or crease.

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